

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1 – 15 (cancelled).

16. (Currently Amended) A microscope having at least one illumination beam path and at least one detection beam path, characterized in that
- each illumination beam path is provided with a focusing arrangement for producing a linear object illumination region which extends in a direction of an illumination axis of the illumination beam path,
 - a detection direction of the at least one detection beam path is approximately orthogonal to the linear object illumination region, and
 - at least one mobile arrangement is provided for producing a relative movement between the linear object illumination region and an object to be studied, wherein the linear object illumination region is essentially limited to [[a]] the direction of the illumination axis.
17. (Previously Presented) The microscope as claimed in claim 16, characterized in that the at least one mobile arrangement is designed to produce a relative movement between the object and the linear object illumination region essentially orthogonal to the illumination axis and the detection direction.
18. (Previously Presented) The microscope as claimed in claim 17, characterized in that the at least one mobile arrangement is designed to move the object in order to produce a relative movement.

19. (Previously Presented) The microscope as claimed in claim 17, characterized in that the at least one mobile arrangement is designed to move the at least one illumination beam path at least in the linear object illumination region provided by it, in order to produce the relative movement.
20. (Previously Presented) The microscope as claimed in claim 19, characterized in that the at least one mobile arrangement is designed to move the at least one detection beam path in accordance with the movement of the at least one illumination beam path, at least in its region near the object.
21. (Previously Presented) The microscope as claimed in claim 16, characterized in that the at least one detection beam path has a detector with a multiplicity of detector pixels.
22. (Previously Presented) The microscope as claimed in claim 21, characterized in that the number and positioning of the detector pixels of the detector are selected so that the at least one detection beam path projects a section of the object, illuminated by the at least one illumination beam path in the object illumination region, essentially fully onto the detector.
23. (Previously Presented) The microscope as claimed in claim 16, characterized in that the at least one mobile arrangement is designed to move the object to be studied essentially in the direction of the detection direction of the at least one detection beam path.

Claims 24 – 45 (cancelled).